



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,816	04/18/2000	Raul Bruzzone	PHF 99,598	2671
24737	7590	08/11/2004	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			FERRIS, DERRICK W	
			ART UNIT	PAPER NUMBER
			2663	17

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/551,816

Applicant(s)

BRUZZONE, RAUL

Examiner

Derrick W. Ferris

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Appeal Brief

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. **Claims 7-18** as previously amended are still in consideration for this application.
3. Examiner **withdraws** the obviousness rejection to ***Proctor*** in view of ***Choate*** for Office action filed **02/06/04**. In addressing applicant's arguments in the response filed **07/06/04**, the examiner would agree based on applicant's clarification that the "multi-directional" antenna structure at the mobile may serve a different purpose (i.e., to prevent multipath fading) which may not clearly be combinable with the ***Choate*** reference. However, the examiner feels the claims as written in present form may still not be allowable. As such, please find two new rejections below.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 7-8, 10-11, 13-14, and 16-17** are rejected under 35 U.S.C. 102(b) as being anticipated by WO 98/29968 to ***Bradley et al.*** ("***Bradley***") cited previously by applicant.

As to **claim 7**, examiner notes a reasonable but broad interpretation of a multi-directional controllable antenna in view of applicant's specification. As such, ***Bradley*** teaches a "multi-directional controllable antenna" as *one* directional antenna 402 which

contains a class of phased array antennas thus being “multi-directional” since more than one antenna is used, see e.g., page 12, lines 8-26. (Applicant does not further recite that a “multi-directional controllable antenna” contains *more than one* directional antenna until the dependent claims.) In particular, see steps 2000-2010 with respect to the step of an acquisition means in figure 17. Specifically, the data acquired is the position information acquired from the primary satellite, see e.g., page 10, lines 14-36. A selection means step is taught since the mobile is in communication with at least one primary satellite at all times (i.e., the active secondary station). Should the one primary satellite move out of range, then another satellite is selected (i.e., the alternative secondary station), see e.g., figure 17 and page 22, lines 15-36. Thus based on the acquired data an active secondary station and an alternative secondary station are selected. A calculating means is taught since the mobile calculates the position of the primary satellite in order to determine the range, see e.g., page 10, lines 7-36. However, in a *bridge beam handoff* as taught in figure 16 the mobile is able to communicate with both a first primary satellite and a second satellite at the same time, see e.g., page 10, lines 20-23 and page 23, lines 7-24. In particular, when locating the second satellite, the mobile determines the position of the second satellite. Thus a calculating means is performed for both satellites (i.e., secondary stations as recited in the claims with respect to calculating means). The position information is stored in memory 502 thus a storage means is also taught, e.g., see page 17, lines 22-28. Finally, the control means is taught in controlling the directional beam by either directing the narrow beam to a specific satellite or using a bridge beam 824 to

communicate with multiple satellites, see e.g., page 18, lines 7-18 and page 23, lines 8-24.

As to **claim 8**, since the mobile uses a narrow beam, the mobile constantly tracks the position of the active or primary satellite, see e.g., page 10, lines 14-36 and page 18, lines 6-29.

As to **claim 10**, see similar rejection to claim 7. The method is taught as part of the apparatus.

As to **claim 11**, see similar rejection to claim 8.

As to **claim 13**, see similar rejection to claim 7.

As to **claim 14**, see similar rejection to claim 8.

As to **claim 16**, see similar rejection to claim 7. The processor 500 implements computer program instructions.

As to **claim 17**, see similar rejection to claim 8.

6. **Claims 7-18** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,314,269 B1 to *Hart et al.* ("*Hart*").

As to **claim 7**, the primary radio station is the earth station 8 (and not the mobile 18) and the secondary stations are satellites 4a and 4b. As such, each earth station 8 has at least two directional antennas 86 thus teaching a multi-directional control antenna, see e.g., column 5, lines 4-19 and figure 3. In particular, each directional antenna corresponds to a directional beam that is steered towards a particular satellite. An acquisition means is taught by receiving a signal and determining the signal quality of a received signal from a mobile 18, see e.g., column 3, lines 54-61. A selection means is

taught as part of handover, see e.g., column 8, lines 25-67. In addition, a selection signal 10 is used as selection means 14 to select one satellite for the forward link, see e.g., figure 1. The earth station 8 also tracks each satellite thus teaching a calculating means step, see e.g., column 6, lines 46-64. The position information can further be stored at the earth station thus also teaching a storage means. The position information is further used to track a satellite by controlling the beam of the directional antenna thus further teaching a control means, see e.g., column 6, line 46 – column 7, line 8.

As to **claim 8**, the earth station 8 tracks more than one satellite, see e.g., column 6, lines 46-64.

As to **claim 9**, acquired data is based on the quality of the data, see e.g., column 3, lines 43-61. In particular, see figure 2 where if a received signal is blocked 20 then the better quality signal from satellite 4a is selected.

As to **claim 10**, see similar rejection to claim 7. The method is taught as part of the apparatus.

As to **claim 11**, see similar rejection to claim 8.

As to **claim 12**, see similar rejection to claim 9.

As to **claim 13**, see similar rejection to claim 7.

As to **claim 14**, see similar rejection to claim 8.

As to **claim 15**, see similar rejection to claim 9.

As to **claim 16**, see similar rejection to claim 7. The processor 500 implements computer program instructions.

As to **claim 17**, see similar rejection to claim 8.

As to **claim 18**, see similar rejection to claim 9.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2663

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DWF

Derrick W. Ferris
Examiner
Art Unit 2663

KWANG BIN YAO
PRIMARY EXAMINER
